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20. A plastic structural element, comprising: a plastic material; at least one connecting point formed as an insert having a length embedded in the plastic material so that a portion of the insert projects from the plastic material, the insert exhibiting different values of at least one of elastic modulus and thermal expansion coefficients compared to the plastic material; and a plastic coupling layer arranged to join the insert to the plastic material, the coupling layer being an intermediate layer of fiber-reinforced plastic, whereby at least one of the elastic modulus and the coefficient of thermal expansion change uniformly or in a stepwise manner in the coupling layer and result in an equilibrating of the elastic modulus and the coefficient of thermal expansion between the plastic material and the insert so as to reduce abrupt changes in at least one of the elastic modulus and the coefficient of thermal expansion at an interface between the plastic material and the insert, the uniform or stepwise change in the coupling layer with respect to the coefficient of thermal expansion and the elastic modulus being achieved by at least one of a change in volume fraction of fibers, kind of fibers, length of fibers and alignment of the fibers or fiber layers in the coupling layer.

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42. A plastic structural element according to claim 20, wherein the insert is made of one of aluminum, magnesium, an alloy containing aluminum and an alloy containing magnesium, the coupling layer being a layered composite and having a layered structure of fiber layers, wherein fibers in individual layers of the structure are oriented in at least one direction, at least one of the fibers and the fiber layers arranged next to the plastic material being aligned with a direction of neighboring fibers and the fiber layers in the plastic material so that a deviation in an angle of orientation of the fibers is less than 60° , one of the fibers and fiber layers adjacent to the

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insert having an orientation of -30° to -70° or $+30^\circ$ to $+70^\circ$, where 0° represents a main direction of forces acting on the insert.

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65. A plastic structural element, comprising:
a plastic material; and
at least one connecting part formed as an insert having a length embedded in the plastic material so that a portion of the insert projects from the plastic material, the insert exhibiting different values of at least one of elastic modulus and thermal expansion coefficients compared to the plastic material, the plastic structural element exhibiting at least one of the following features:

a) the insert having at least one opening through which at least one of reinforcing fibers, fiber strands and textile type materials are looped and are embedded in and intermittently joined to the plastic matrix of the plastic structural element at its free end so as to anchor the insert in the plastic material; and

b) the insert having an imbedded length with one of strips, fingers and finger-shaped projections that one of lie parallel, are comb-like and fan-shaped.